

## STRINGED INSTRUMENT STRUMMING/PICKING APPARATUS AND METHOD

### BACKGROUND OF THE INVENTION

#### Field of the Invention

This invention relates generally to apparatus and methods for strumming/picking stringed instruments.

#### Discussion of the Prior Art

The use of a pick to strum or pick a stringed instrument, such as a guitar, is well known. Picks have been provided in a variety of sizes, shapes, and materials typically adapted to be held on the thumb or between the finger and thumb of a user.

There are several styles used for strumming a stringed instrument, such as a guitar. Included among these various styles are the flat-picking style which uses a pick, and a style referred to as "finger style", which does not use a pick. The preferred style often varies depending on the posture of the player. Thus the player may be standing with the instrument hanging from a neck strap, sitting with the instrument resting on the right leg, or in the classic style, sitting with the instrument resting on the left leg. In all of these styles, a pick may be used. However, particularly in the classic mode, finger style is generally preferred. Current flat-picks and thumb picks are less compatible with this classical style due to the strumming/picking angle, the angle between the strumming/picking path and the strings.

In the present day there is an increasing trend among guitarists to work with both flat-pick and finger style methods. Although there are many workbooks on the market which teach both techniques, they are usually segregated. There is an advanced flat-pick method, however, which demonstrates the use of the second, third and little finger for picking while gripping the pick between the thumb and first finger. In another method, the guitarist magically palms the flat-pick in order to use all of the fingers. Both of these latter two methods are advanced styles and are very difficult to master and can be restrictive.

Nevertheless it can be appreciated that there is an increasing interest in combining flat-pick and finger style methods in order to achieve all of the possible variations in sound, tactile feel, flexibility and a challenge.

#### SUMMARY OF THE INVENTION

In accordance with the present invention, a thumb sleeve is provided with attachment means, such as hook and loop patches, which can be used to attach a pick to the thumb sleeve. The attachment means is initially preferred because it prevents movement of the pick between sweaty fingers. The pick need not be held with a pressure so great that it limits the resulting tonal quality. In addition, the attachment means facilitates positioning the pick between an extended position and a retracted position. Thus the pick can be extended to facilitate use in the flat-picking method and retracted to free all fingers for finger style play. Specially configured picks can be provided in accordance with this invention to facilitate use with the thumb sleeve. In addition, a pivot pad, typically made of felt, can be formed for example with a compound taper, and attached to the pick for use with or without the thumb sleeve. The tapered pad will facilitate a preferred disposition of the pick relative to the strings in accordance with the guitar holding style and the playing style desired by the player.

In one aspect of the invention, a pick apparatus is adapted for use in strumming strings of a musical instrument. The apparatus includes a pick adapted to be held by a user and to be moved in a contacting and strumming relationship with the strings of the instrument. A thumb sleeve is adapted for disposition on the thumb of a user and includes attachment means having a first structure carried by the sleeve and a second structure carried by the pick. The attachment means is adapted for  
5 releasably attaching the pick to the sleeve. The attached pick is moveable by the fingers of the user between a first position and a second position spaced from the first position on the meatus of the thumb.

10 In another aspect of the invention, a pick combination is adapted for use in strumming strings of a musical instrument. The combination includes a pick having a first surface and a second surface opposing the first surface. A pivot pad has a third surface and a fourth surface opposing the third surface. The third surface of the pivot pad is attached to the first surface of the pick and the fourth surface of the pivot pad is disposed with an angular relationship to the third surface of the  
15 pad.

In another further aspect of the invention a pick pad is adapted for attachment to a stringed instrument pick. The pad includes a first major surface and a second major surface, and is formed with an axis extending between a front edge of the pad and a back edge of the pad. The axis is  
20 disposed to generally bifurcate the pad into equivalent areas of the pad. The first surface of the pad includes a first taper extending generally along the axis and a second taper extending generally transverse to the axis. Means is disposed on the second major surface of the pad for attaching the pad to the stringed instrument pick.

25 These and other features and advantages of the invention will become more apparent with a description of preferred embodiments and reference to the following drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a guitar positioned on the right leg of a user with the guitar held in a generally horizontal configuration;

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FIG. 2 is a perspective view of a guitar balanced on the left leg of the user and held at an angle to the horizontal;

FIG. 3 is perspective view of a guitar held in a classical style at an advanced angle to the horizontal;

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FIG. 4 is perspective view of a finger sleeve of the present invention mounted on a thumb of a user;

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FIG. 5 is a perspective view showing attachment means on the thumb sleeve and an associated pick facilitating attachment of the pick to the sleeve;

FIG. 6 is a perspective view showing the pick in an extended position for use in a flat-picking style;

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FIG. 7 is a perspective view of the pick in the extended position and applied to the strings of the guitar;

FIG. 8 is a perspective view of the user's thumb showing the sleeve and the pick in a retracted position facilitating the finger style of play;

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FIG. 9 is a perspective view showing the pick in the retracted position with the fingers of the user strumming the guitar;

FIG. 9a is a bottom plan view of a user's thumb showing various orientations of the pick;

FIG. 10 is a top plan view of a preferred embodiment of the thumb sleeve prior to formation of the sleeve in a tubular configuration;

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FIG. 11 is a plan view of an additional embodiment similar to Figure 10 of the thumb sleeve;

FIG. 12 is a perspective view of the embodiment of Figure 11 formed into its tubular configuration;

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FIG. 13 is a perspective view of a further embodiment of the thumb sleeve including a Velcro pad attached to an elastic member;

FIG. 14a is a top plan view of a pad adapted for mounting on a pick;

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FIG. 14b is a side elevation view taken along lines 14b – 14b of Figure 14a;

FIG. 14c is a side elevation view taken along lines 14c – 14c of Figure 14a;

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FIG. 15 is a side elevation view of a pick pad and Velcro attaching means of the present invention;

FIG. 16 is a top plan view of a pick combination associated with the present invention;

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FIG. 17 is a perspective view of a thumb sleeve, a pick pad and Velcro attachment means of the present invention;

FIG. 18 is a top plan view of a further embodiment of a pick associated with the present invention;

FIG. 19 is a top plan view of a further embodiment of a pick associated with the present invention;

FIG. 20 is a perspective view of another embodiment of the thumb sleeve with a pick and  
5 attachment means disposed interiorly of the sleeve; and

FIG. 21 is a cross-section view taken along lines 21 – 21 of Figure 20.

DESCRIPTION OF PREFERRED EMBODIMENTS  
AND BEST MODE OF INVENTION

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A guitar is illustrated generally in Figure 1 and designated by the reference numeral 10. This  
guitar 10 is merely representative of many types of musical instruments which include strings 12,  
extending along a neck 14, and anchored at a box 16 which may be hollow and/or include an  
15 electronic pickup (not shown).

The position of the guitar 10 and strings 12 is dictated primarily by the neck or fingerboard  
14 and its relationship to the horizontal. Thus, in Figure 1, the guitar 10 is held in a generally  
horizontal configuration and balanced on the right leg 17 of a player 18. This horizontal  
20 configuration is also common when the player 18 is standing and the guitar 10 is supported by a  
neck strap (not shown). In Figure 1 it can be seen that the player 18 has a hand 21 which is moved  
along a strum path designated by the reference number 23.

In Figure 2 the guitar 10 is held at a slight angle to the horizontal as it is balanced on a left  
25 leg 19 of the user 18. Finally, in Figure 3 the guitar 10 is illustrated to be held at an advanced angle  
to the horizontal with the guitar 10 balanced on the left leg 19 of the user 18. This orientation  
illustrated in Figure 3 is commonly used in the classical style of play.

In each of the playing orientations illustrated in Figures 1-3, it can be seen that the angle of the strum path 23 relative to the strings 12 varies with the orientation of the guitar 10.

However, this is only one of the variables which ultimately results in the sound achieved when a particular one of the strings 12 is strummed. When a pick is held in the hand 21 of the player 18, its physical characteristics also affect the sound. Thus, the material, the thickness of the pick, as well as its flexibility and the grip intensity will not only affect the sound but also the tactile feedback to the hand 21 of the player 18.

This tactile feedback is even further increased in the finger style of play where no pick is brought into contact with the string. In this finger style of play, the meatus of the thumb and fingers of the hand 21 are used to individually pluck the strings 12 or collectively strum the strings 12.

A thumb 25 on the hand 21 of the player 18 is illustrated in the perspective view of Figure 4. In this view it can be seen that the thumb 25 has a longitudinal configuration and extends to its end which includes a nail 27 on one side and a meatus 29 on the other side. In this common configuration of the thumb 25, the meatus 29 or thumbnail is brought into direct strumming contact with the strings 12 in the finger style of play.

In accordance with the present invention, a thumb sleeve 32 is provided for disposition on the thumb 25 as illustrated in Figure 4. The sleeve 32 is disposed generally over a first knuckle 34 of the thumb 25 but leaves portions of both the nail 27 and meatus 29 exposed to facilitate the finger style of play. An attachment means 36 such as a hook and loop pad system, commonly referred to as Velcro (a trademark of Velcro Industries), can be used to adhere a pick 38 to the sleeve 32. In the embodiment illustrated in Figure 5, an attachment means 36 includes a loop pad 41 attached to the sleeve 32 in proximity to the meatus 29 of the thumb 25. The attachment means 36 also includes a hook pad 43 which is attached to the pick 38. In operation, the hook pad 43 and associated pick 38 are brought into engagement with the loop pad 41 and associated sleeve 32 as illustrated in Figure 6.

The placement of the pick 38 relative to the sleeve 32 is of particular interest to the present invention. When the attachment means 36 is embodied with the loop and hook pads 41 and 43, respectively, the pick 38 can be placed in generally any position and orientation relative to the meatus 29 of the thumb 25. In Figure 6, the pick is illustrated to be attached in an extended position where it can be held in place between the first finger and thumb 25 of the hand 21. In this extended position, the pick 38 is positioned to facilitate the flat-pick style of play. This style is further illustrated in Figure 7 where the pick 38 in the extended position is easily brought into contact with the strings 12 of the guitar 10.

Particularly with the hook and loop attachment means 36, the pick 38 can be reoriented relative to the sleeve 32. For example, the pick 38 might be moved from the extended position as illustrated in Figure 6 to a retracted position as illustrated in Figure 8. In this retracted position, the pick 38 remains in contact with the sleeve 32 for future reorientation, but is sufficiently removed from the nail 27 and meatus 29 of the thumb 25 so that strumming is facilitated in the finger style of play. This style is further illustrated in Figure 9 where it can be seen that the pick 38 remains with the sleeve 32 but is sufficiently removed from the meatus 29 to permit strumming of the strings 12 directly with the fingers and thumb 25.

A bottom plan view of the underside of the thumb 25 is illustrated in Figure 9a. In this view it can be seen that the thumb 25 is disposed generally in a thumb plane 45 (the plane of the page in Figure 9a) and has a longitudinal configuration which extends to a tip 47. With reference to this view it can be seen that the placement of the pick 38 in the extended and retracted positions may vary considerably with the holding position of the guitar 10 and strumming style of the player 18.

In general the pick 38 will be moved between these two positions laterally in a plane generally parallel to the plane of the thumb 25. However, the extended position may be longitudinally spaced from the retracted position along the meatus of the thumb. Thus, the pick 38 may be moved from an extended position at the tip 47, designated by the solid lines 49, to a retracted position spaced longitudinally, as shown by the dotted lines 52.



Alternatively, the extended and retracted positions may be spaced transverse to the longitudinal dimension of the thumb 25. In such a case the extended position might be that designated by the solid line 53; the retracted position might be that shown by the dotted lines 54. The pick 38 in the extended position will be disposed in a plane generally parallel to the thumb plane 45. In the retracted position, the plane of the pick 38 may be either parallel to or transverse to the thumb plane 45.

Although this embodiment has been described with an attachment means including hook and loop pads 43 and 41, respectively, it will be appreciated that the attachment means 36 may include any other structure adapted to hold the pick 38 in contact with the sleeve 32 while permitting the movement of the pick 38 between an extended position and a retracted position. Thus, for example, the attachment means 36 might include an adhesive or an adhesive tape applied to either one or both of the pick 38 and the sleeve 32.

The sleeve 32 and its method of manufacture are of particular interest to the present invention. One embodiment of the sleeve 32 is illustrated in Figure 10 in a top plan or cutout view. In this case, the sleeve 32 will typically be formed from sheet material which is generally flexible and may be formed from a fabric and/or a resilient material such as foam rubber. Such materials are commonly used for example in the manufacture of polypropylene gloves. A sheet material including elastic foam may offer further advantages to a particular embodiment as discussed in greater detail below.

In Figure 10, the plan or cutout view illustrates that the sleeve 32 can be provided with two generally parallel edges 56 and 58. After the sleeve 32 is cut from the sheet material, these edges 56 and 58 can be brought into proximity to form the sleeve 32 into a tubular configuration. Between the edges 56 and 58, the sheet material can be cut along a first line 61 and a second line 63 spaced from the first line 61. In this embodiment, the first line 61 is provided with a peak 65, with a deep

valley 67 on one side and a shallow notch 69 on the other side. Between the notch 69 and the edge 56, a flap 71 is formed for attachment to the opposing edge 58. Hook and loop patches, or other coupling means 73, can be attached to this flap to facilitate the tubular formation.

5 In this embodiment, the second line 63 can be formed with a peak 75, which is generally equally spaced to the edge 58 with the valley 67, and a valley 77 which is generally equally spaced from the edge 56 with the notch 69. Once the sleeve 32 is formed into its tubular configuration, the deep valley 67 exposes the side of the nail 27 and meatus 29 of the thumb 25 as shown in Figure 4. The peak 75 along the second line 63 provides a tab which the player 18 can grasp with the other  
10 hand in order to pull the sleeve 32 onto the thumb 25.

A further embodiment of the invention is illustrated in Figures 11 and 12 where elements of structure similar to those previously discussed will be referred to in the same reference numeral followed by the lower case letter "a." Thus, in the plan cutout view of Figure 11, the opposing  
15 parallel edges are designated with reference numerals 56a and 58a. The first line 61a is similar to the embodiment of Figure 10 in that it includes a valley 67a. Likewise, the bottom line 63a includes a peak 75a. In this case, however, the valley 67a and peak 75a are generally equidistant from both of the edges 56a and 58a. The attachment means 73a, such as the loop patch 41a, can be sewn or adhered to the fabric or backing of the sleeve 32a.  
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In a typical manufacturing process, the backing could be cut from sheets of the fabric material and screen printed with a design on the finished side of the material. The material can then be folded in half with the design on the inside and the edges 56a and 58a aligned coextensively. A seam 79 could then be sewn along the edges 56a and 58a to form a lap joint or otherwise joined to  
25 create the tubular configuration of the sleeve 32a. The sleeve 32a could then be turned inside out in order to display the design side and pattern. The resulting product would appear generally as illustrated in Figure 12. With the seam 79 on one side of the sleeve 32a, the valley 67a and peak 75a would be disposed on the opposite side of the sleeve 32a.

In this embodiment of the sleeve 32a, the second line 63a is divided by the peak 75a into a first line 81 and a second line 83 which are similar in shape and orientation. When the seam 79 is formed, these lines 81 and 83 are substantially coextensive along the bottom edge 63a of the sleeve as shown in Figure 12.

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This is not the case with the edge 61a which is divided into lines 85 and 87 which are dissimilar in shape. The line 85 is closer to the line 81 and therefore defines a more narrow portion of the sleeve 32a. By comparison, the line 87 is further from the line 83 and therefore defines a wider portion of the sleeve 32a. The relative shape and position of the lines 81-87 is best illustrated in the view of Figure 12.

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A further embodiment of the invention is illustrated in Figure 13 where elements of structure similar to those previously discussed are designated with the same reference numeral followed by the lower case letter "b". This embodiment is similar to that illustrated in Figure 12 in that it includes the bottom edge 63b formed by the lines 81b and 83b, as well as the sewn seam 79b. This embodiment also includes the top edge formed by the lines 85b and 87b. In this embodiment, however, an elastic strip 89 is provided and sewn to the thicker portion of the sleeve 32b between the lines 83b and 87b. This elastic strip 89 is oriented generally perpendicular to the sewn seam 79 as illustrated in Figure 13. In this particular embodiment, the elastic strip 89 is sewn into the seam 79 but is otherwise free to move relative to the sleeve 32b. At the opposite end of the elastic strip 89, the loop patch 41b can be attached to the strip 89.

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In operation, the user would then attach the pick 38 to the loop pad 41b. When flat-picking was desired, the user would merely push the pick forward stretching the elastic strip 89. This would move the pick to the extended position and facilitate flat-picking. Then, if the user desired to transition to a finger picking style, the pick could merely be released permitting the elastic strip 89 to withdraw the pick to a retracted position such as that illustrated in Figure 8. Thus the pick would always stay with the finger sleeve 32b, but it would be manually movable to the extended position and automatically movable to the retracted position.

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It has been found that changes in playing style as well as guitar orientation, may require adjustments in the angle of the pick 38 relative to the thumb 25 in order to maintain tonal quality. In order to facilitate changes in angle, a pivot pad can be provided such as that illustrated in Figure 14a and designated by the reference numeral 90. Such a pad 90 can be attached generally to any flat  
5 pick to facilitate angle variations and more importantly provide freedom of technique. The pivot pad 90 is also adapted for use with the sleeve 32 as shown and described in greater detail with reference to Figure 17. In this combination, the pivot pad 90 also functions to permit manipulation of the pick 38 relative to the thumb 25 of the user.

10 A particular embodiment of the pivot pad 90 is formed of a hard felt material and includes a first major surface 92 which may have a planar configuration, and a second major surface 94 which may have a contoured configuration including a planar portion 95 and a bump or berm 96. The pivot pad 90 has a generally fat configuration with convex edges 98 and 101 which meet at corners 103 and 105. The planar portion 95 of the major surface 94 is disposed at a slight angle to the plane  
15 of the major surface 92, and is positioned generally along the edge 98 and closer to the corner 103. The berm 96 is positioned generally along the edge 101 and closer to the corner 105. The berm 96 has its highest point in proximity to the corner 105. From this point it slopes downwardly to the corner 103 and downwardly toward the edge 98. A self-stick base 107 will typically be provided on the major planar surface 92 to facilitate adherence to the pick 38. Such an embodiment is illustrated  
20 in Figure 15.

It will be appreciated that the pivot pad 90 can be provided with many different configurations and shapes. Generally, the two major surfaces 92 and 94 will be non-parallel. For example, they both may be planar surfaces disposed at some slight angle with respect to each other  
25 as illustrated in Figure 15. Alternatively, as in the embodiment illustrated in Figure 14a, the major surface 94 may be contoured meaning that it is non-planar. Placement of the points of greatest thickness or highest elevation, such as the bump or berm 96, will also vary to provide the advantages desired for a particular embodiment.

In the embodiment of Figure 15, elements of structure similar to those previously discussed are designated with the same reference numeral followed by the lowercase letter "c." In this embodiment, the pick 38c is illustrated in a side elevation view to show the tip 47c and the pivot pad 90c with its major surfaces 92c and 94c. The major surface 92c is adhered to the pick 38c with a self-stick base 107c such as adhesive. The opposite surface 94c of the pad 90c is provided with the attachment means such as the loop pad 41c.

A further embodiment is illustrated in Figure 16 where elements of structure similar to those previously discussed are designated with the same reference numeral followed by the lower case letter "d." In this embodiment, the pivot pad 90d is generally that illustrated in Figures 14a-c. Thus it includes the major surface 94 with the contour configuration. This pad 90d together with the loop pad 41d is adhered to the pick 38d in the manner previously discussed. In this case, the pick 38d extends from the tip 47d to a back edge 109. Tonal quality as well as flexibility can be achieved by tapering the pick 38d generally from the tip 47d to the back edge 109.

These embodiments of Figures 15 and 16 with the hook pads 43d are particularly adapted for use with the sleeve as illustrated in Figure 17. In this view, elements of structure similar to those previously discussed are designated by the same reference numeral followed by the lower case letter "e." Thus, the thumb 25e and nail 27e of the user are illustrated with the sleeve 32e operatively disposed. The hook pad 43e mounted on the sleeve 32e is operatively attached to the loop pad 41e on the pivot pad 90e and the pick 38e.

Figure 18 illustrates a top plan view of a flat pick configured to facilitate use in multiple playing styles and guitar orientations. In this view, elements of structure similar to those previously discussed are designated with the same reference numeral followed by the lower case letter "f." Thus, the pick 38f includes the tip 47f as well as the back edge 109f. In this case, the back edge is provided with a chamfer 110 which provides clearance for the first finger on the user's hand. The

pivot pad 90f is provided with a first finger leverage arch 112 which is disposed on side of pick 38f opposite the pivot pad 90f. A triangular-shaped hole 114 can be provided near the tip 47f to facilitate a pick configuration having a thicker tip 47f for better tonal quality, without sacrificing a high degree of flexibility.

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A further embodiment of the pick is illustrated in Figure 19 where elements of structure similar to those previously discussed are designated with the same reference numerals followed by the lower case letter "g." In this embodiment, the triangular hole 114g is defined by a back surface 115 generally perpendicular to the plane of the pick 38g, and a pair of side surfaces 116 and 118 which are disposed generally transverse to the plane of the pick 38g. With this construction, wide variations in the thickness and flexibility of the pick 38g can be controlled by the shape and size of the hole 114g as well as the configuration and size of the transverse side surfaces 116 and 118.

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A further embodiment of the invention is illustrated in Figures 20 and 21 where elements of structure similar to those previously disclosed are designated by the same reference numeral followed by the lower case letter "h." Thus, Figure 20 illustrates the thumb 25h with the associated nail 27h and meatus 29h. The thumb sleeve 32h is provided in a tubular configuration with a proximal opening 121 and distal opening 123. In Figure 20, a portion of the sleeve 32h has been removed to illustrate the interior regions of the sleeve 32h. These regions are defined by an inner surface 125 of the sleeve 32h which extends between the openings 121 and 123. In this embodiment, a lateral opening 127 is also provided in the sleeve 32h.

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In this case, the attachment means 36h is mounted on the inner surface 125 interiorly of the sleeve 32h. The pick 36h is also disposed interiorly of the sleeve 32h where it is held to the sleeve 32h by the attachment means 38h. The tip 47h of the pick 36h extends through the hole 127, in the side of the sleeve 32h. Thus the tip 47h is the only portion of the pick 36h which extends exteriorly of the sleeve 32h. Of course several lateral holes, such as the hole 127 could be provided in the sleeve 32h to accommodate different positions of the tip 47h relative to the thumb 25h. The tip 47h could even be mounted to extend through the distal hole 123 of the sleeve 32h.

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From the foregoing description of preferred embodiments, it will be apparent that many of the advantages associated with the present invention relate to the shape, size, contour and material of various elements of structure. Of course these shapes, sizes, contours and materials can all be varied slightly to provide the specific advantages discussed above. For this reason, one is cautioned not to  
5 limit the concept only to those embodiments disclosed, but rather to determine the scope of the invention only with reference to the following claims.